# STATEMENT OF JUSTIFICATION CATEGORY 20 SPECIAL EXCEPTION CREEKMONT ESTATES WATER STORAGE TANK AND PUMP STATION CEDAR RUN MAGISTERIAL DISTRICT FAUQUIER COUNTY, VIRGINIA

PINS: 7924-34-0017-000, 7924-14-7596-000 AND 7924-26-7370

### INTRODUCTION

The applicant is requesting a Category 20 Special Exception to construct an above ground water storage and pumping facility within the proposed Creekmont Estates Subdivision. We have also included PIN 7924-36-7370, the proposed Greenwich Woods Subdivision located on the adjoining Eugene Luke property as a co-applicant as the water system is being designed to accommodate both subdivisions. The referenced properties, each zoned Residential-1 (R-1) and are 83.5856 acres, 0.66 acres and 35.3995 acres respectively, totaling 119.4114 acres. The properties are located on Route 603 between Greenville Road (Route 761) and Kennedy Road (Route 652) within the Village of Greenville. The Creekmont Estates parcels proposed for subdivision was once the farm and residence of the Nicholson family. The Greenwich Woods property is currently a vacant wooded lot. The properties are bounded to the east and south by large parcels zoned Rural Agricultural (RA). The properties to the west and north are zoned R-1.

Creekmont Estates is a proposal to divide 89.0119 acres into forty (40) single-family residential lots ranging from  $\pm 40,000$  to  $\pm 95,000$  square feet in size. The proposed plan provides the minimum required twenty-five percent (25%) open space. This proposed plan represents a by-right conventional subdivision in the Residential-1 (R-1) zoning district.

Greenwich Woods is a proposed subdivision of 35.3995 acres into seventeen (17) single-family residential lots. This proposed plan is also a by-right conventional subdivision in the R-1 Zoning District.

The Comprehensive Plan identifies "the Village of Greenville as a category II village with access to Vint Hill. The Plan stipulates that recent development activity associated with Vint Hill indicates the appropriateness for "in-fill development with limited expansion." Creekmont Estates and Greenwich Woods are prime examples of such infill development. With the 100-foot buffer provided along the adjacent RA properties, these subdivisions effectively create the end of the Village of Greenville, providing the hard edge envisioned by the Plan to limit future expansion. The proposed subdivisions are in harmony with both the Comprehensive Plan and the surrounding community of existing subdivisions.



# **BACKGROUND**

Creekmont Estates and Greenwich Woods are the type of subdivisions that are required by Article 7-501.1.B of the Fauquier County Zoning Ordinance to be served by public water. The applicants are, therefore, proposing a public water system to be operated and owned by the Fauquier County Water and Sanitation Authority (FCWSA). The system is being designed by Golder Associates of Richmond, Virginia in conformance with the standards mandated by both the FCWSA and the Virginia State Department of Health (VDH) Waterworks standards.

The proposed water system was initially designed to accommodate 73 single-family residences. The preliminary location of the wells and associated infrastructure are shown on both the Preliminary Plan and Special Exception Plat. As previously stated the both Creekmont Estates and Greenwich Woods will be served by the proposed public community water system. The average demand for this system is estimated to be 29,200 gallons per day (gpd) based upon Virginia Department of Health's annual average household consumption rate of 400 gpd. This rate is referred to as the equivalent residential connection (ERC). Please note, the system is currently overdesigned based upon the current count of 57 lots being proposed.

To ensure adequate long-term source capacity of water systems that rely solely on groundwater sources, VDH requires that both excess capacity and redundancy is designed into the waterworks. VDH requires that a minimum of .5 gallons per minute (gpm) or 700 gpd of well capacity be developed for each ERC. In the case of Creekmont Estates and Greenwich Woods, based on 73 ERCs, a minimum well capacity of 36.5 gpm or 52,560 gpd should be developed to serve the domestic needs of the community.

Fauquier County requires that public water supply wells must have a minimum yield of 50 gpm as outlined in Section 18-1.C of the Fauquier County Subdivision Ordinance. The Virginia Department of Health also requires finished water storage facilities for community water systems equivalent to at least 200 gallon per ERC (or ½ of the estimated daily water demand). In the case of Creekmont Estates and Greenwich Woods, a minimum storage of 14,600 gallons would be needed. In addition, the proposed water system must be designed to be capable of meeting the maximum hourly flow or maximum daily use plus applicable fire flows, whichever is greater. In the case of Creekmont Estates and Greenwich Woods the maximum hourly flow is estimated to be 118 gallons per minute according to Golder Associates. However, the minimum fire flow allowable by Fauquier County is 750 gpm for a 120 minute time period.

In order meet the requirements of the Virginia Department of Health and Fauquier County, an above ground fire storage tank and associated pump station are necessary components of the public water system. The fire storage tank and pump station are located within Creekmont Estates. Article 3-320.3 of the Zoning Ordinance requires a Special Exception for all above ground water and sewer pumping and storage facilities.



The Special Exception is governed by standards set forth in Article 5-2000 of the Zoning Ordinance.

# THE SPECIAL EXCEPTION REQUEST

By this application, the applicant, Greenwich LLC, is proposing to locate the water storage and pressure equalization elements of the public water system that is to serve both Creekmont Estates and Greenwich Woods. The applicant is seeking a Category 20 Special Exception to place an above ground water storage facility and pump station on well lot number 2 between proposed lots 27 and 28 as shown on the Preliminary Plan and Special Exception Plat. The type of tank proposed is an "Aqua Store" silo structure approximately 26 feet in height and 31 feet in diameter. The tank is detailed within the Preliminary Plan and Special Exception Plat. The silo-style tank will be located at the 352-foot contour, which in turn puts the top of the tank at an elevation of 378 feet. This structure will be located on a 100 x 100 foot lot dedicated to the Fauquier County Water and Sanitation Authority.

The pump station and associated infrastructure will be located on the same lot as the water storage facility. The majority of the facility will be located within a 20 x 20 foot pre-fabricated concrete building made by Smith-Midland Easi-Set Industries. The building will be approximately 13 feet in height. A 5,000 gallon hydroneumatic tank and a Cummins quiet power 100 kW generator are the only infrastructure to be located outside the building. The hydroneumatic tank and generator will be completely screened from view by a 6-foot tall treated wood picket fence. Both facilities, the pump station and storage tank, are located at such an elevation that they will not be visible from Greenwich Road (Route 603), and they should only be visible from the lots created within Creekmont Estates.

The facility will operate 24 hours per day, 7 days per week. The facility will be unmanned with the exception of daily visits in accordance with VDH and FCWSA requirements by operations and maintenance personnel. The facility will not be open or available to the public, and there are no associated employees. All operators must be licensed waterworks operators in accordance with VDH guidelines. Traffic to the facility will be generated by operations and maintenance personnel. Occasionally, there will be minimal additional traffic associated with the operation of the facility. It will be served by a 12 foot access road that connects to McKinley Way. The planned service areas for the pump station and storage tank are the proposed Creekmont Estates and Greenwich Woods subdivisions.

The primary criterion for approving a Category 20 Special Exception is the finding that there "is no more suitable site available for such use in a Commercial or Industrial District, except that in the case of electric transformer stations and telephone exchanges or dial centers, there shall be a finding that there is no alternative site available in a Commercial or Industrial District within one mile, unless there is a substantial showing that it is impractical for satisfactory service to be rendered from an available location in such a Commercial or Industrial District."



First, there are no Industrial properties located within a 1 mile radius of the proposed location as shown in **Figure 1**. There are 3 Commercial properties located within the 1 mile radius, at the intersection of Route 605 (Dumfries Road) and Route 603 (Greenwich Road). However, these properties are not suitable locations for the proposed infrastructure, because they currently serve as a convenience store/gas station and a nursery, with the other ±2.5 acre commercial sit e part of a 50 acre farm.

# Figure 1



Second, it makes practical sense to locate the facilities in the area which they are intended to serve. The storage tank and pump station are proposed to primarily serve Creekmont Estates and Greenwich Woods and not the surrounding community. Placing the facilities internal to the proposed development limits the impact on the surrounding community. Based on design requirements and area to be served, the location proposed is the most suitable and appropriate for the planned infrastructure.

A public water system is a requirement of the Fauquier County Zoning Ordinance for subdivisions of the type proposed. The proposed water storage facility and pump station are public water system requirements of both the Virginia Department of Health and Fauquier County. In order to comply with all applicable regulations the water storage



facility and pump station must be included as components of the public water system. Therefore, we respectfully request approval of the Category 20 Special Exception for the above ground water storage facility and pump station as shown on the Preliminary Plan and Special Exception Plat.

12.16.06